

radial joints of right palpus, from above and behind; *k*, natural length of spider.

Fig. 3. *Calydna prospiciens*, ♂: *a*, spider, from above, enlarged; *b*, ditto, in profile; *c*, caput and falces, from the front; *d*, maxillæ, labium, and sternum; *e*, *e'*, natural length, and spider in outline, of natural size.

Fig. 4. *Salticus volans*, ♂: *a*, spider, from above, enlarged; *b*, ditto, without legs, showing abdominal flaps folded; *c*, ditto, ditto, with flaps extended; *d*, abdomen, from beneath, showing underside of extended flaps; *e*, natural length of spider.

Fig. 5. *Salticus speciosus*, ♂: *a*, spider from above, enlarged; *b*, ditto, without legs, in profile; *c*, underside of abdomen; *d*, natural length of spider.

XXV.—On three new Species of Toucans pertaining to the Genus *Aulacorhamphus*. By JOHN GOULD, F.R.S. &c.

THE remarkable South-American family of Rhamphastidæ, or Toucans, of which about six kinds were known to Linnæus, now amount to over fifty very distinct species, each possessing good and tangible specific characters. The entire family has been subdivided into five groups, to which the following generic appellations have been applied—viz. *Rhamphastos*, *Pteroglossus*, *Selenidera*, *Andigena*, and *Aulacorhamphus*.

It is to the genus *Aulacorhamphus* (or little green toucans) that the three new species pertain. They all inhabit the fine countries of Venezuela and Columbia.

: *Aulacorhamphus calorhynchus*.

Entire plumage green, with the following exceptions:—above and surrounding the bare space in which the eye is placed bright blue; throat grey, washed with blue; tail-feathers green, inclining to blue towards the tips. Bill yellow, with the central portions of both mandibles greenish yellow, bounded behind by a narrow line of white; bare skin surrounding the eye reddish brown; legs greenish blue.

Sexes alike in colour; female rather smaller than the male.

Measurements of male—total length 14 inches, wing 5, tail 5, bill  $3\frac{1}{2}$ , tarsus  $1\frac{1}{4}$ .

*Hab.* Merida. Collected by Mr. Goering.

This is by far the finest species of the little section of the Rhamphastidæ to which it belongs—a section differing from the rest of the green toucans by the tail-feathers being uniform in colour. The present species is altogether larger than the old *A. sulcatus*, and very different in the marking of its bill.

*Aulacorhamphus erythrognathus.*

Base of the upper and hinder half of under mandible clear uniform light chestnut-brown; the remainder of the bill clouded with black, with horny tips to both mandibles. Entire plumage green except the throat, which is light blue-grey; a blue wash also pervades the six middle tail-feathers; over the eye a narrow line of blue, and also a spot of the same colour on the cheeks next the bill and beneath the naked skin round the eye, which is reddish brown; legs green.

Total length 12 inches, wing  $4\frac{1}{2}$ , tail  $4\frac{3}{8}$ , tarsus  $1\frac{1}{4}$ , bill  $2\frac{1}{2}$ .

*Hab.* Cariepe, Venezuela.

*Remark.* It is now many years since the late Jules Verreaux presented me with a specimen of this little toucan, which he considered quite distinct from any known species. In the collection of Mr. Salvin there exists another example, sent, I believe, to this country by Mr. Goering. If this bird be compared with its ally *A. sulcatus* it will be found small in size, while the bill is deep, short and robust, and not so deeply channelled on the sides. The tail is perhaps shorter than in other species of the family.

*Aulacorhamphus phaeolæmus.*

General plumage deep grass-green, the green inclining to yellow on the flanks and to blue on the tail; throat deep greyish blue; a narrow stripe of blue surmounts the eye, and there is an almost equally narrow line of blue beneath the bare space at the base of the bill; culmen of the upper mandible yellow, except at the hinder part next the head, which, with the remainder, is black; under mandible black, with a deep-chestnut base; both mandibles, however, have a broad white line next the face; vent and all the tail-feathers tipped with chestnut-red; on the last feather the green runs up to the end on the outer margin, but not so on the rest; a conspicuous narrow yellow line occupies the front of the shoulder—a mark which is observable in other species, but much less conspicuous than in the birds here described; legs greenish.

Total length 13 inches, bill  $2\frac{3}{8}$ , wing 5, tail  $5\frac{1}{4}$ , tarsus  $1\frac{3}{8}$ .

*Hab.* Concordia, in Columbia, and Merida, in Venezuela, from both of which localities I have examples in my collection—those from Concordia sent by Mr. Salmon, that from Merida by Mr. Goering.

The nearest ally to this bird is the *A. albivitta*, a bird with a white throat.